ADWR Supply & Demand Assessment Overview

Natalie Mast, AMA Director
John Riggins, Statewide Planning Manager

Public Meeting
December 8, 2022

Agenda

- Background & Overview of SB1740
- 2023 Groundwater Basins
- Data & Methods
- Q & A

This meeting is being recorded, and the recording will be available online within a few business days.

Hybrid Meeting Logistics

Virtual Attendees

- Mute yourself when not speaking.
- Indicate you wish to speak by typing your name in the chat box, and you will be invited to unmute and speak.
- Please message "Everyone" in the chat.
- Please state your name when speaking.

In-Person Attendees

- Hold all questions until the end of the presentation.
- Raise your hand if you wish to speak, and staff will bring you a microphone when it is your turn.
- Speak into the microphone and state your name when speaking.

The meeting and chat will be recorded.

*Technical issues? Send a **direct message to ADWR-Host** in the chat, call the ADWR Help Desk at **602-771-8444,** or email tickets@azwater.gov.*

SECURING ARIZONA'S WATER FUTURE

"Challenges bring opportunity. This expansion of WIFA creates an opportunity for the state to secure its water future. I want to thank Governor Ducey, the Arizona Legislature and stakeholders for coming together to collaboratively come up with this important legislation."

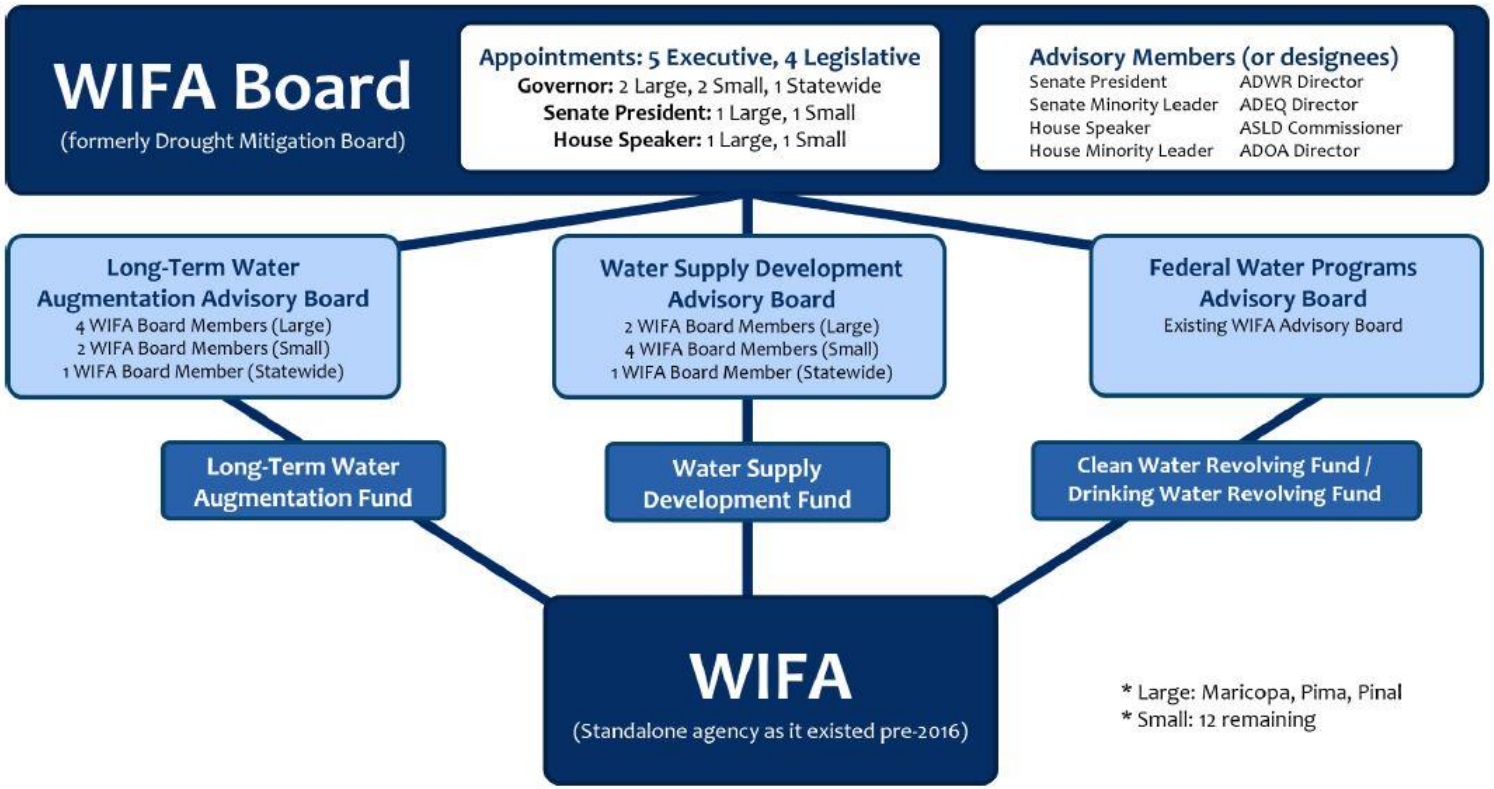
TOM BUSCHATZKE
DIRECTOR, ARIZONA DEPARTMENT OF WATER RESOURCES

SB 1740 water infrastructure financing; supply; augmentation

- SB 1740 was one of the last acts signed into law during the 55th Legislative Session
- It includes funding to WIFA for $1.2 Billion
- WIFA will have new responsibilities to provide loans and grants to entities for the purposes of augmentation, conservation, efficiency and reuses of water resources
- These new duties to pursue augmentation and conservation projects include new WIFA board structure appointed jointly by the Legislature and the Governor.

New WIFA Board

Structure of the new WIFA Board



Water Supply & Demand Analysis

A.R.S. § 45-105(B)(14)

*"Not later than December 1, 2023 and on or before December 1 of each year thereafter, prepare and issue a water supply and demand assessment for at least six of the [**fifty-one**] groundwater basins established pursuant to section 45-403. The director shall ensure that a water supply and demand assessment is completed for all groundwater basins at least once every five years…"*

Purpose of the Analysis

A.R.S. § 49-1304

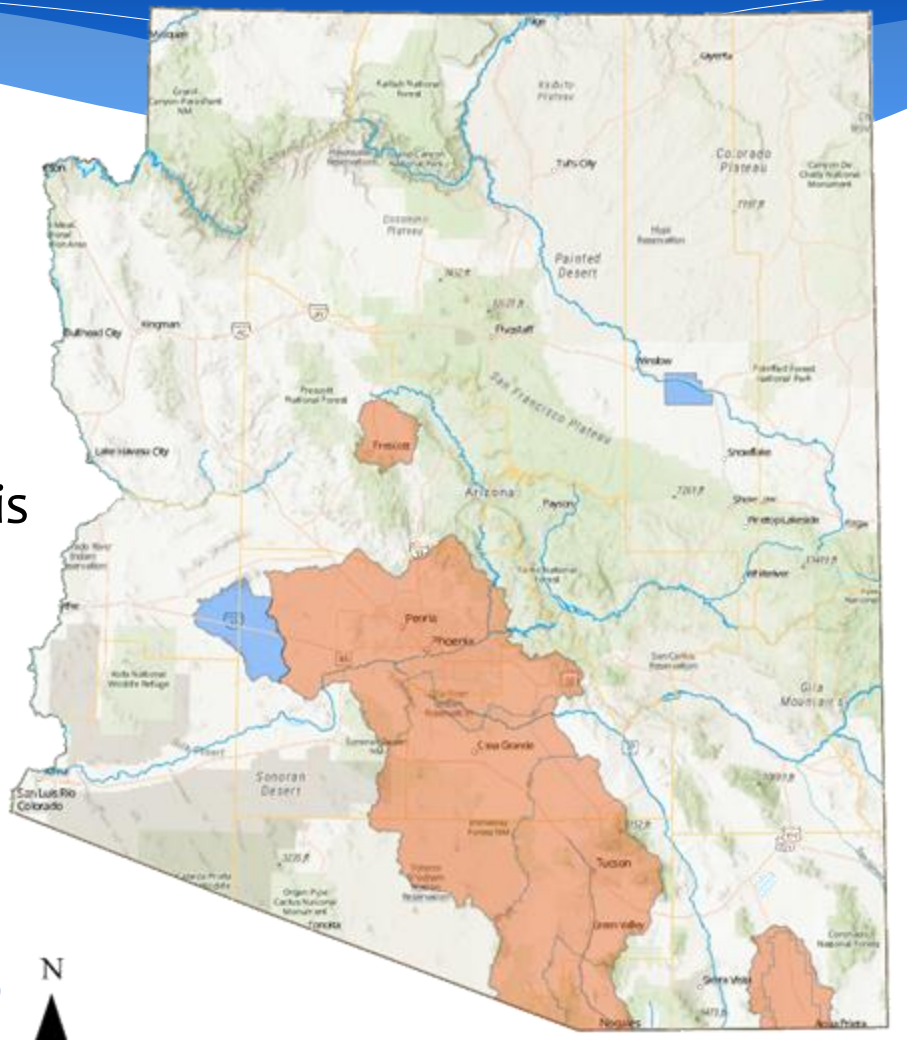
"A. The authority shall determine the order and priority of water supply development projects proposed to be funded in whole or in part with monies from the long-term water augmentation fund, participation in projects to import water or allocation of imported water based on the following, as applicable:

...

14. Existing, near-term and long-term water demands compared to the volume and reliability of existing water supplies of the beneficiaries of the funding or project. In evaluating this criterion, the authority shall consider information contained in any applicable water supply and demand assessment that has been issued by the director of water resources pursuant to section 45-105, subsection b, paragraph 14, in addition to any other information submitted to evaluate this criterion."

Timeline:
Supply & Demand Analysis

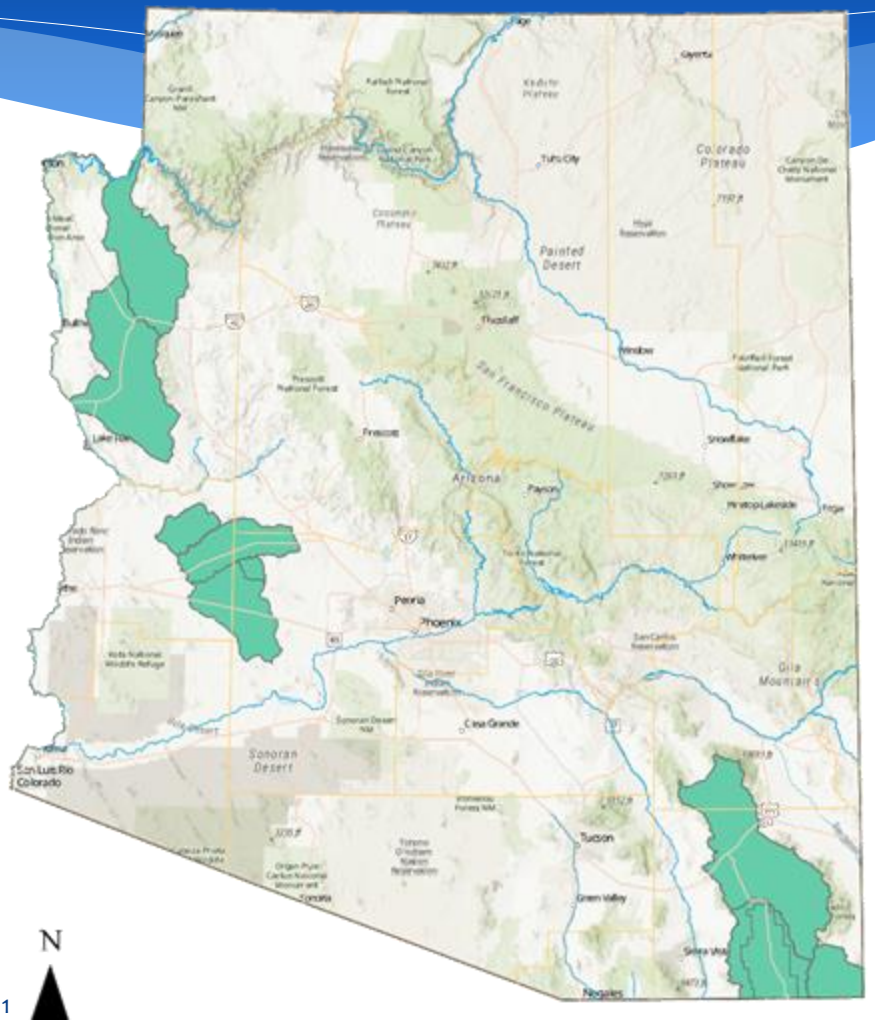
- July – December 2022
  - Hiring/Training Staff
  - Developing initial datasets
  - Developing initial assumptions
  - Identify initial basins for analysis
- Calendar Year 2023
  - Analyses for initial basins
  - Assessments due December 1, 2023 (and December 1 of each year thereafter)



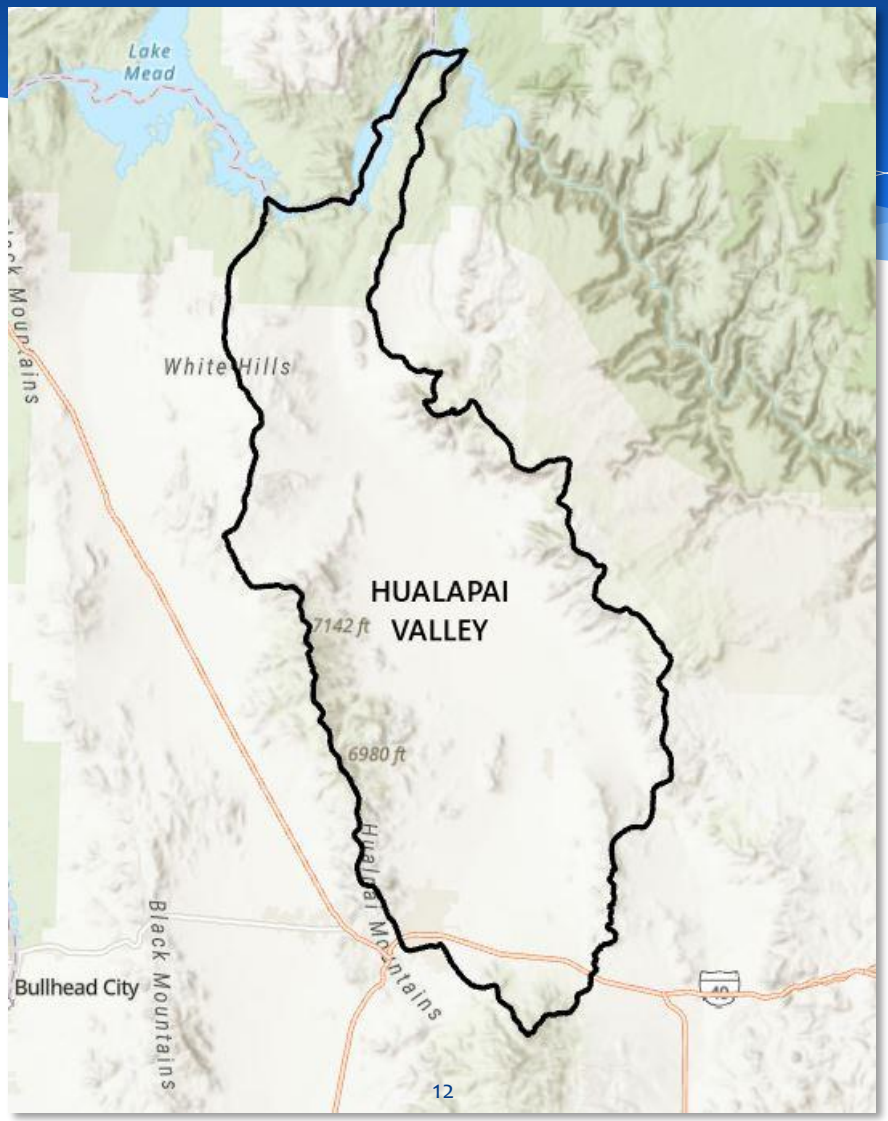
2023 Groundwater Basins

First Year (2023) Groundwater Basins Included in the Assessment

- Northwestern Arizona Basins
  1. Sacramento Valley Basin
  2. Hualapai Valley Basin
- West-Central Arizona Basins
  3. Harquahala INA
  4. McMullen Valley Basin
  5. Butler Valley Basin
  6. Tiger Wash Basin
- Southeastern Arizona Basins
  7. Douglas AMA
  8. Willcox Basin
  9. San Bernardino Valley Basin



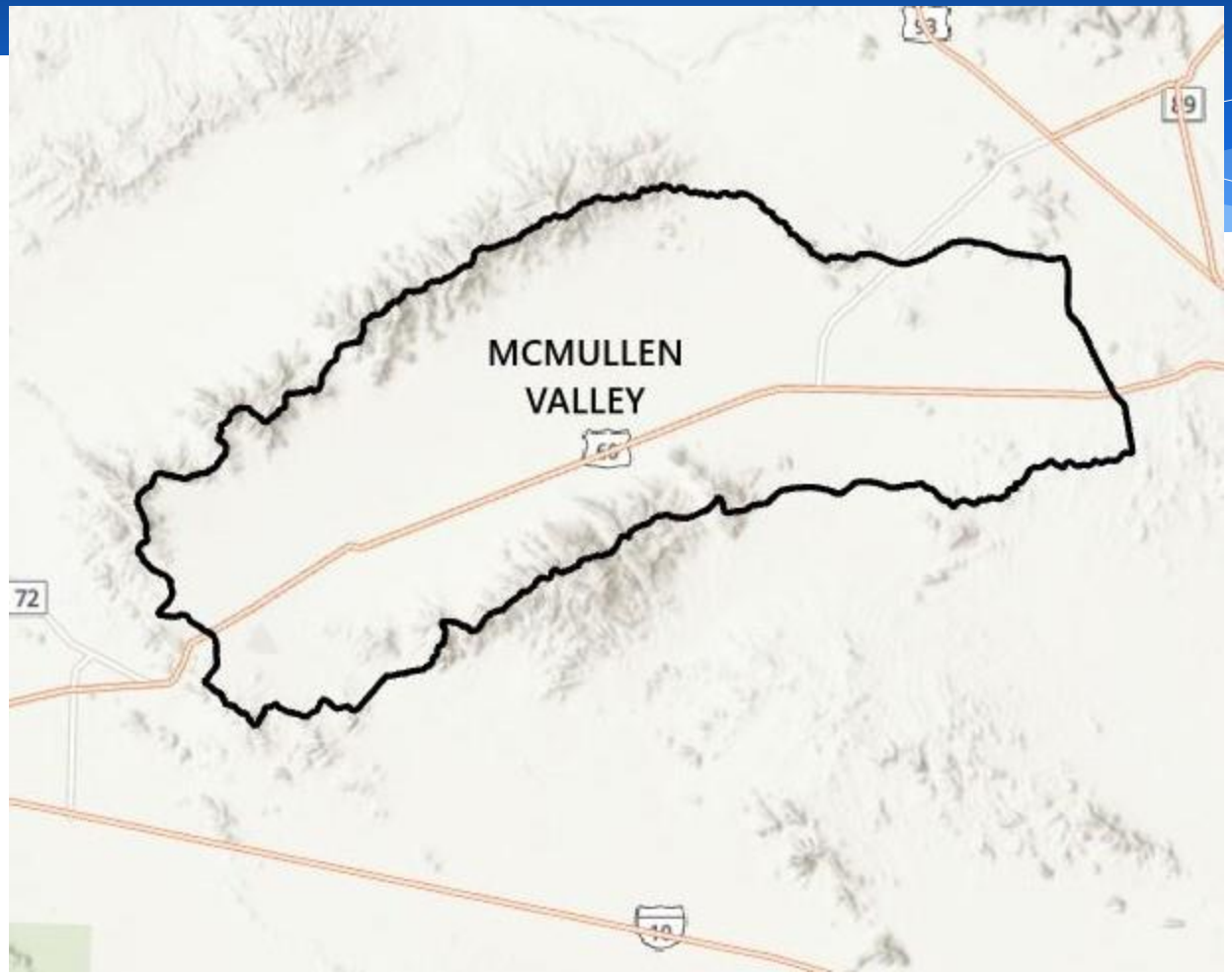
Hualapai Valley Basin



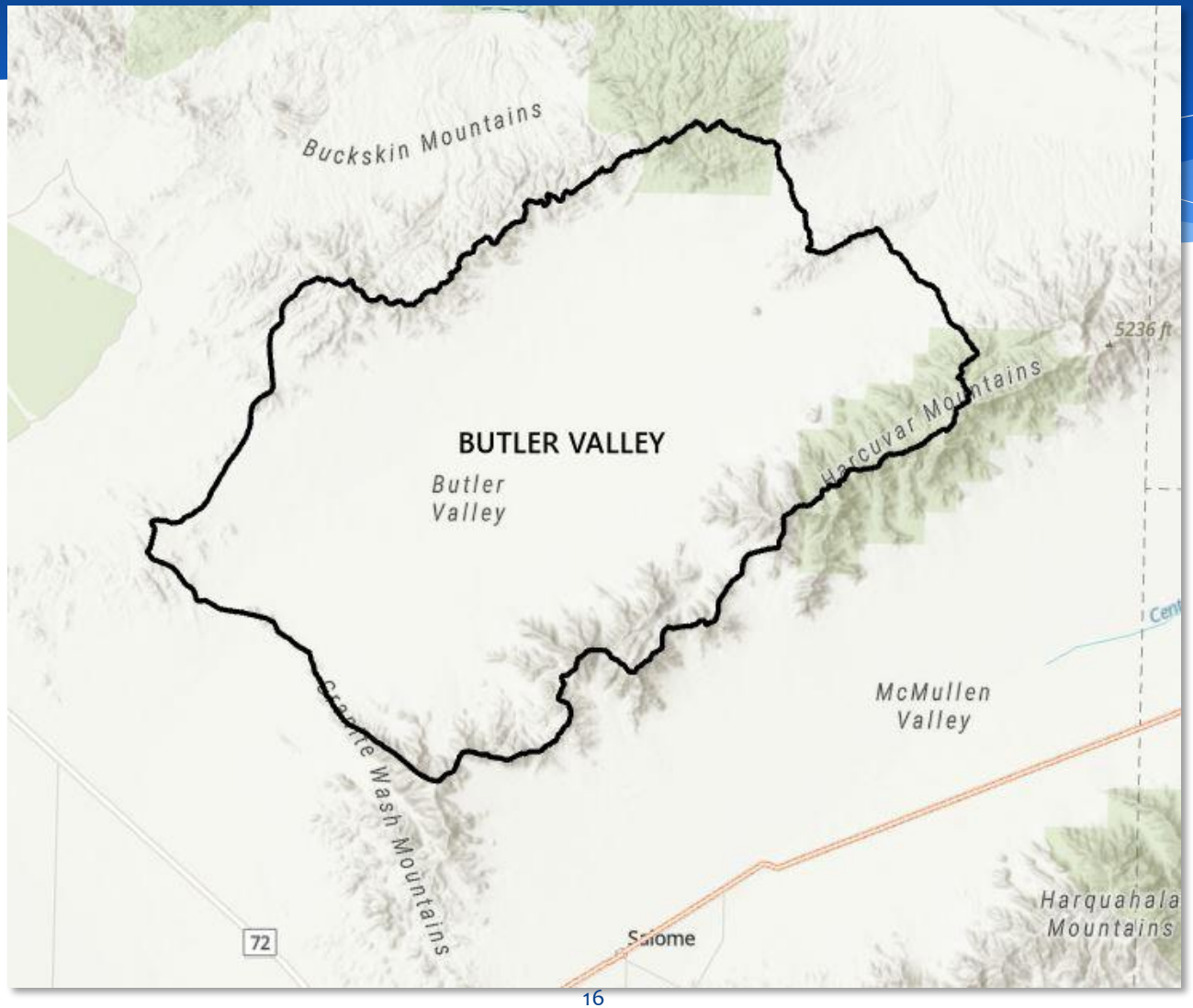
Sacramento Valley Basin

Harquahala INA

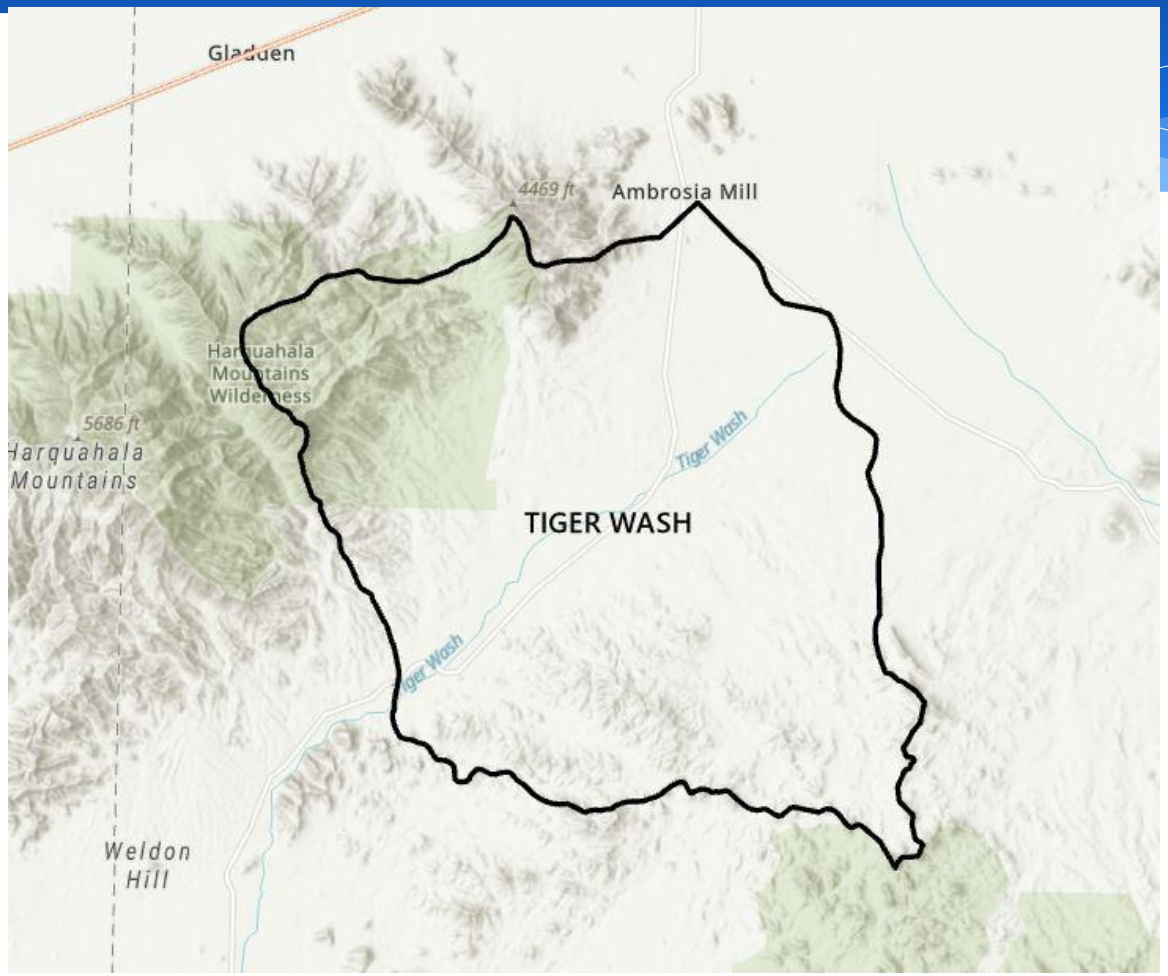
McMullen Valley Basin



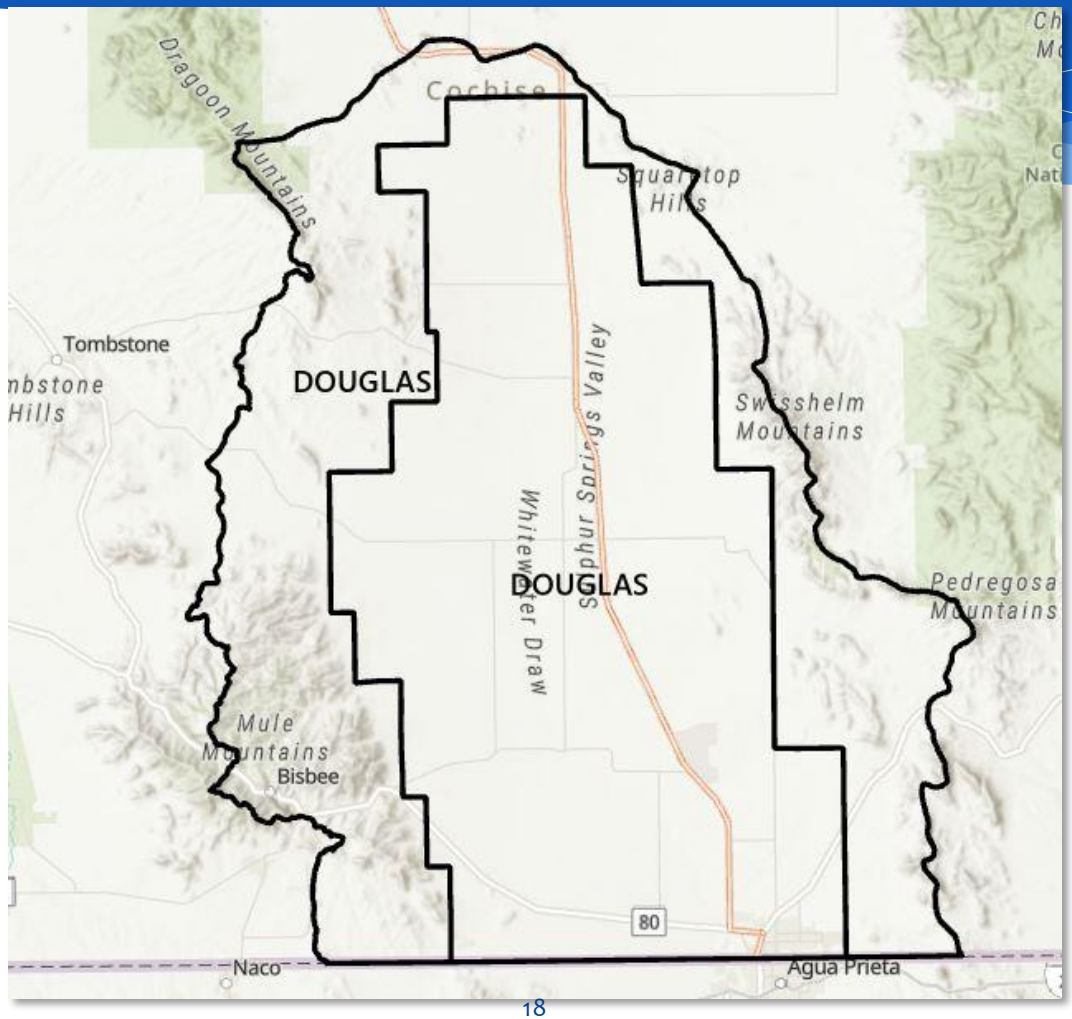
Butler Valley Basin



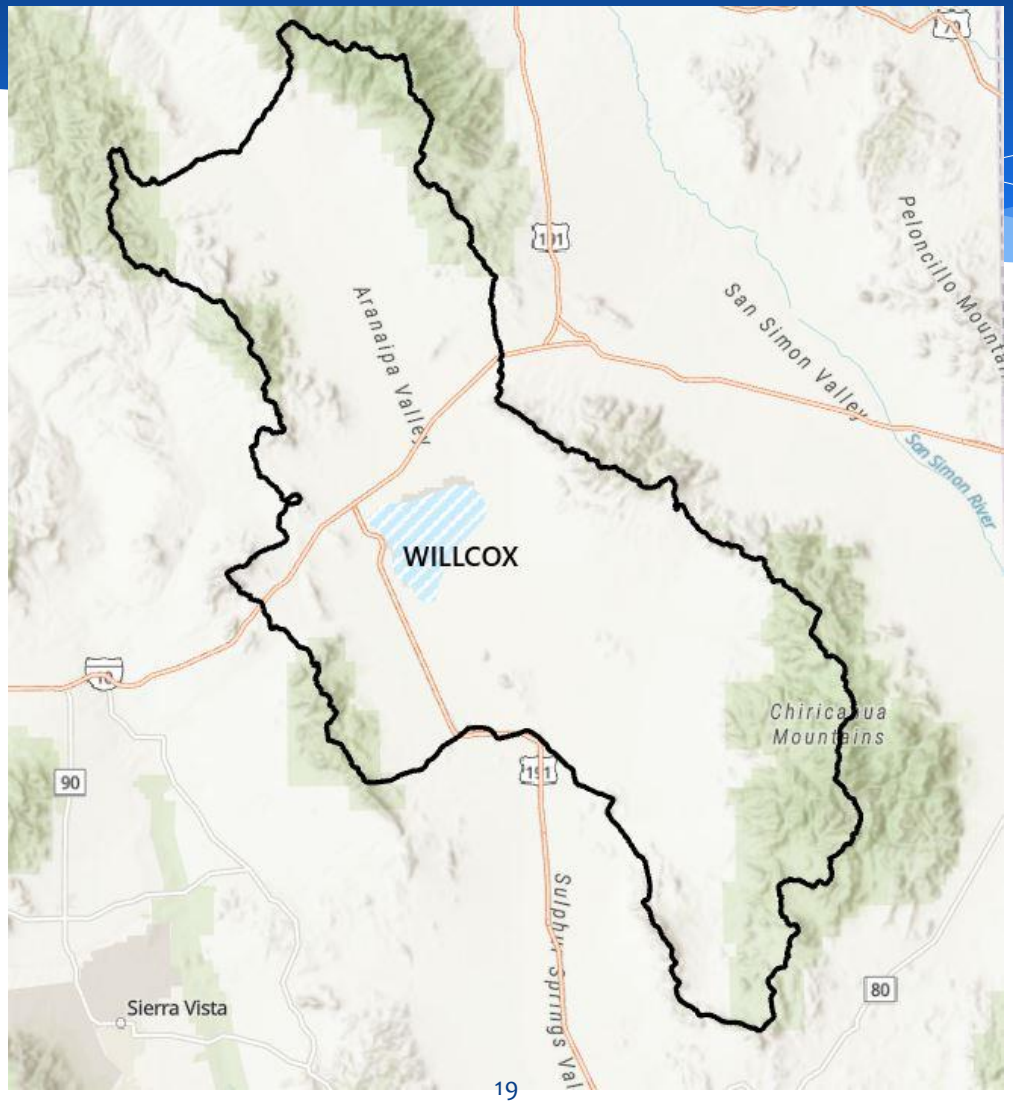
Tiger Wash Basin



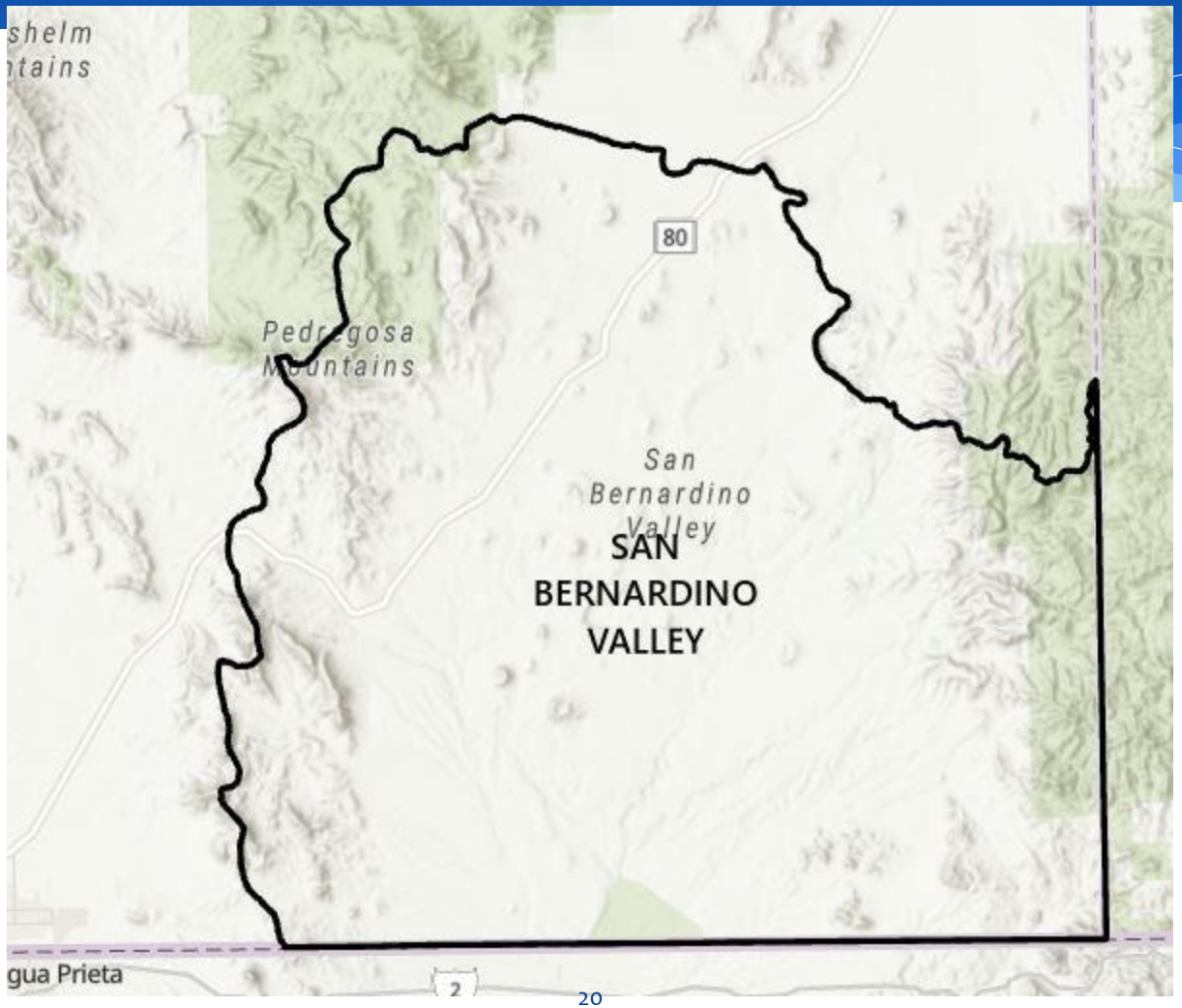
Douglas AMA


Dragoon Mountains
Cochise
Squaretop Hills
Tombstone
DOUGLAS
Swisshelm Mountains
Sulphur Springs Valley
Whitewater Draw
DOUGLAS
Pedregosa Mountains
Mule Mountains
Bisbee
80
Naco
Agua Prieta

Willcox Basin

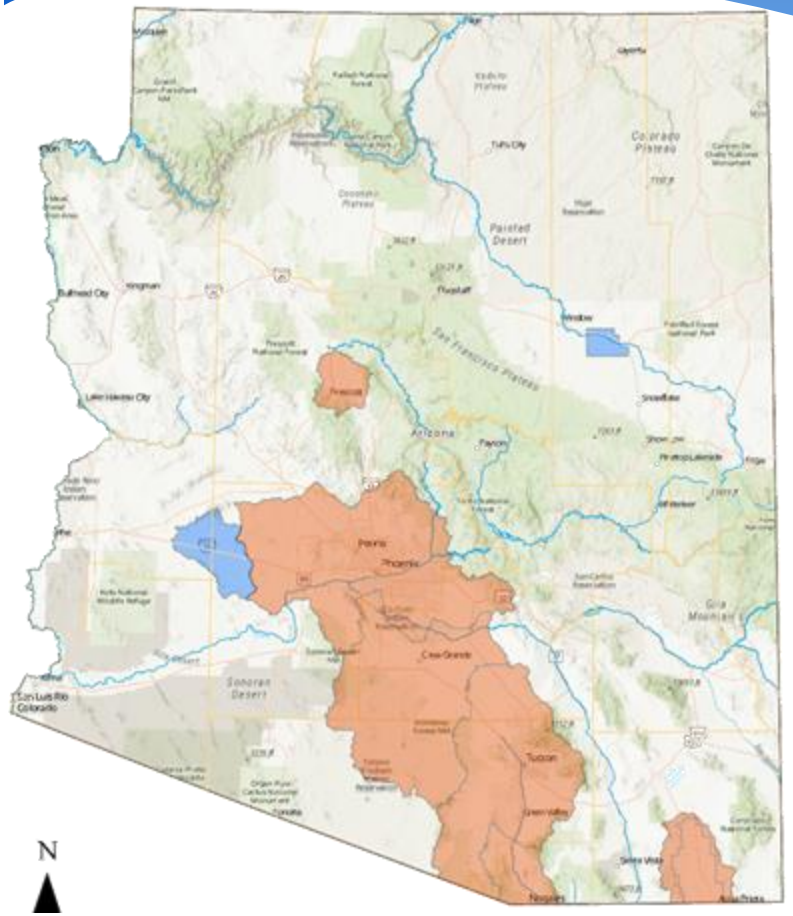


San Bernardino Valley Basin



Current Data Availability & General Analysis Methods

Existing Active Management Areas (AMA) & Irrigation Non-Expansion Areas (INA)



Six AMAs

- Prescott AMA
- Phoenix AMA
- Pinal AMA
- Tucson AMA
- Santa Cruz AMA
- Douglas AMA *(est. December 1, 2022)*

Two INAs

- Joseph City INA
- Harquahala INA

Current Annual Data Compilation

Compiled AMA data is available at new.azwater.gov/ama/ama-data
Statewide Water Use information is available at www.arizonawaterfacts.com

AMA Annual Report Data

Prescott AMA	Phoenix AMA	Pinal AMA	Tucson AMA	Santa Cruz AMA	Recharge Data	Hydro/Wells Data
• Ag/Muni/Industrial	• Ag/Muni/Industrial	• Ag/Muni/Industrial	• Ag/Muni/Industrial	• Ag/Muni/Industrial		

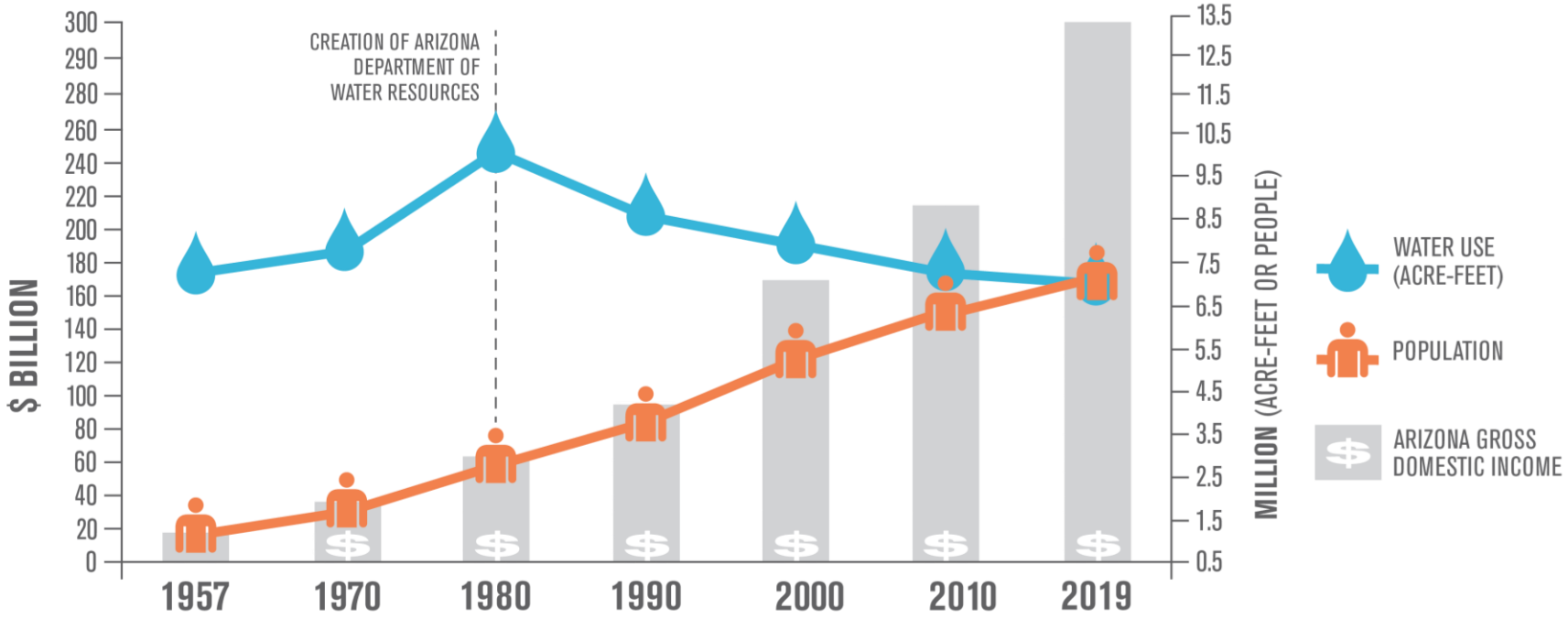
Statewide Data

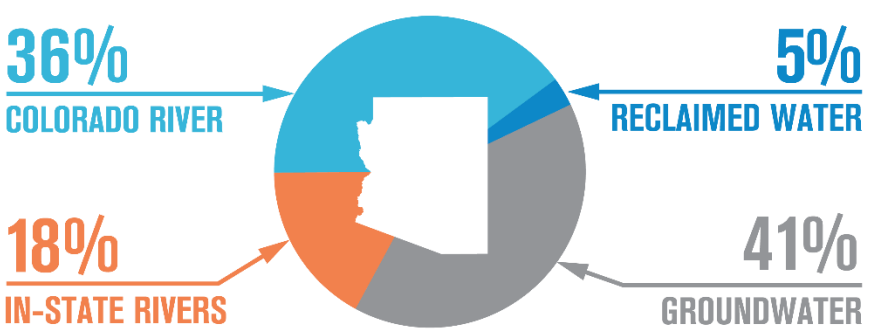
Bureau of Reclamation	USGS	CWS (ADWR)

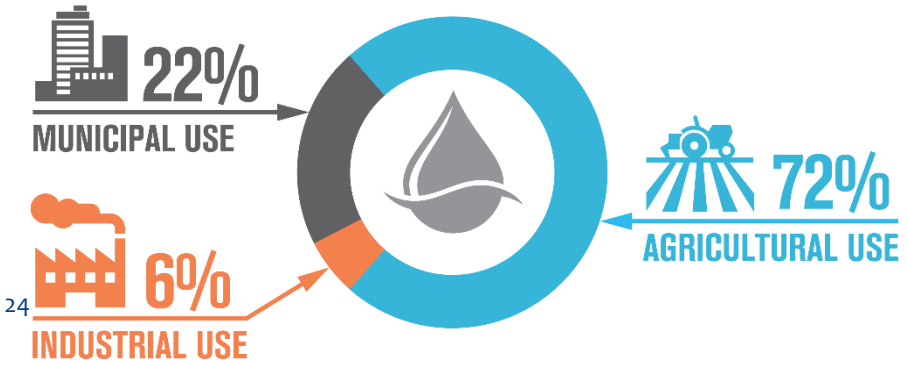
Statewide Water Use Estimates

Statewide Water Use Estimates

(2019)

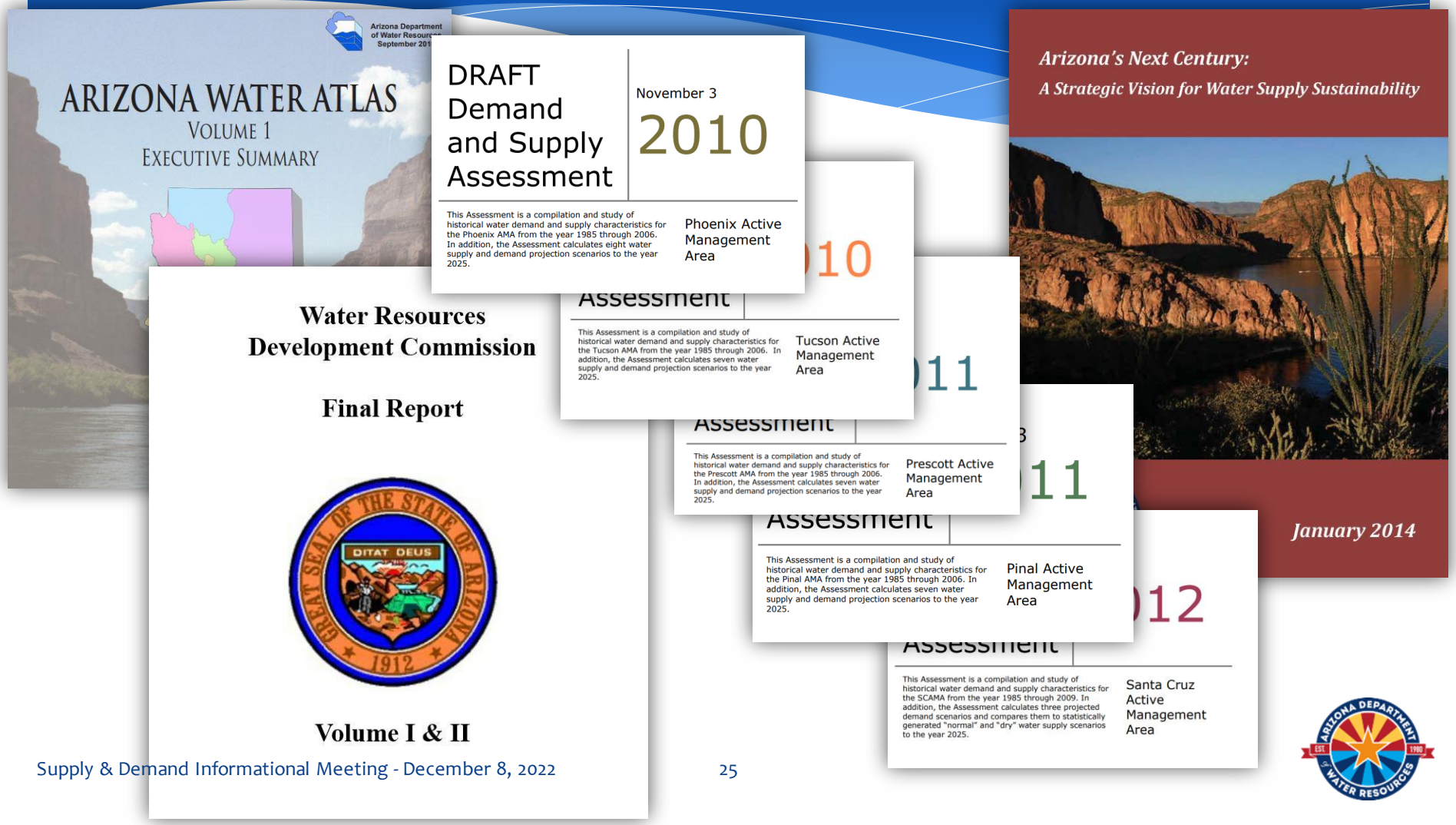




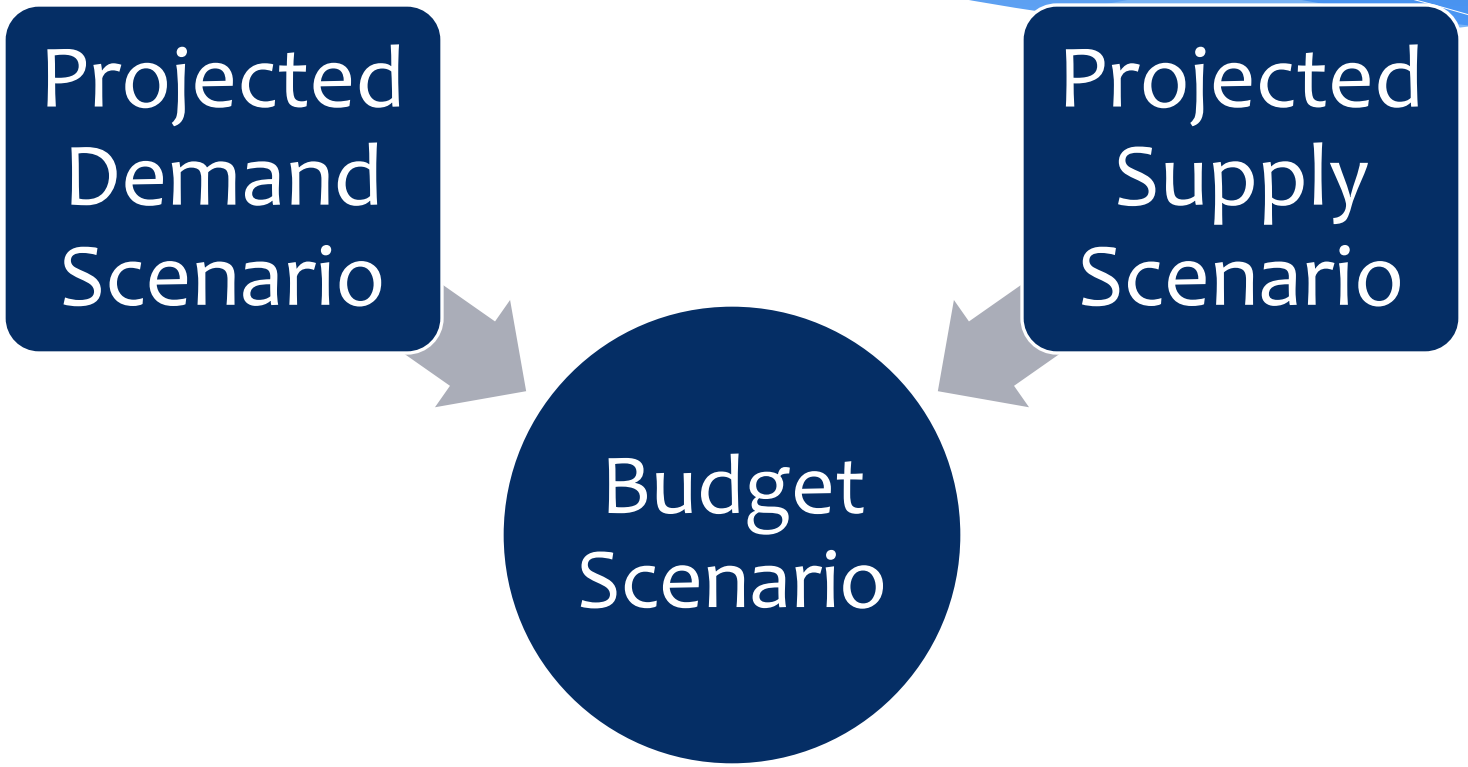


http://www.arizonawaterfacts.com/water-your-facts

Previous Supply & Demand Analyses



Basin Scale Water Budget Scenarios



Water Supply & Demand Assessment Deliverables

- Method: Basin-scale water budget and projections
- Data: Combination of reported data, existing estimates, newly developed estimates, and newly developed projection scenarios
  - Limited reported data – heavy reliance on estimates
    - 43/51 Basins are <u>not</u> required to report most water uses *(Exception: Community Water Systems)*
- Final Assessment Report and Online Data Tools

Water Supply & Demand Assessment - Managing Expectations

- Deadline: December 1, 2023 (and each December thereafter)
- Methods
  - Creating new structure/methods
  - Will improve on methods and add complexity over time
- Water budget is not a flow model
  - Not a spatial representation of water levels
  - Shows volumes as basin-scale totals

Water Supply & Demand Assessment provides data analysis intended for planning/informational purposes - not intended to be used as a regulatory tool.

Considerations for Scenarios & Assumptions

Supply

- Groundwater
  - Definition of Imbalance
- Colorado River Water
  - Shortage Scenarios
  - Duration of Shortage
- In-State Surface Water
  - Adjudications
- Effluent
  - Changes in types of use

- Other General Considerations
  - Current Utilization
  - Potential for Augmentation
  - Climate Change

Demand

- Agricultural
  - Projection methods
- Municipal
  - Residential/Non-residential uses
  - Population projections*
- Industrial
  - Category diversity/focus
  - Challenges with estimates
- Tribal
  - Settlements
- Environmental
  - Quantification

- Other General Considerations
  - Impact of Conservation Programs and/or Curtailments

Supply & Demand Team

- Cross-functional team
  - AMA
  - Statewide Planning
- Demand Analysts and Supply Analysts
- Stakeholder Outreach
- Data & Documentation

- Potential to contract with outside entities

Questions?

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https://new.azwater.gov/

Thank you!

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